

REMARKS

In accordance with the foregoing, claim 4 has been amended. Claims 1-10 are pending and under consideration.

Claims 4-6 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,808,713 to Broer et al. Fig. 2 of Broer et al. discloses a polarizer 31 having reflective facets 34. As can be seen in Fig. 2, light from light source 9 travels into the polarizer 31 through surface 29 at which point the light is reflected at surface 29 or reflected at the reflective facets 34.

Amended claim 4 requires that the unified composite optical element comprise a polarization film located at a light output side, and a prismatic light control face for modifying directivity of input light, the prismatic light control face being one surface located at a light input side of the polarization film itself. It should clear that this is quite different from the configuration disclosed in Broer et al, which employs a reflective polarizer 31 and reflective facets 34. With the reflective function of Broer et al., the device disclosed therein could not operate as claimed.

With regard to claims 5 and 6, these claims require a unified composite optical element comprising a polarization separating sheet member which transmits input light components having a first polarization plane and reflects input light components having a second polarization plane, perpendicular to the first polarization plane. The unified structure disclosed in Broer et al. reflects light and does not have the polarization separating function involving transmission and reflection.

With regard to claims 1-3 and 7-10, the Examiner relies primarily upon U.S. Patent No. 6,104,454 to Hiyama et al. The device disclosed in Hiyama et al. is somewhat similar to that described in the background of the invention section of the present application. However, the device disclosed in Hiyama et al. is very different from that claimed. Specifically, Hiyama et al. does not disclose or suggest anything about unifying the second converting means 240 of the reference with any other elements of the device.

The Examiner cites Howard v. Detroit Stove Works for the proposition that it would have been obvious to unify elements 240 and 252 of Hiyama et al. However, this case, a copy of which is enclosed, does not apply. The 1893 decision predates the modern standards for patentability. In fact, when 35 U.S.C. § 103 was codified, the previous decisions such as

Howard v. Detroit Stove Works became substantially inapplicable.

Even if Howard v. Detroit Stove Works were good law, it does not render the claims obvious. Referring to page 169 of the opinion, the Supreme Court cited other prior art to invalidate U.S. Patent No. 206,070. The mention of forming something in two pieces instead of one piece relates to prior art which does not appear to have been fully evaluated during the case. The Court's statements with regard to the two-piece/one-piece destination appears to be dicta in view of the Court's apparent invalidation of the patent based on other prior art. The only motivation for the modifying Hiyama et al. as suggested by the Examiner is the motivation provided in the present application.

It is important to note that the prismatic light control element (second converting means) 240 of Hiyama et al. tends to move easily because it is not unified with any other element of the LCD panel. To the contrary, claims 1-3 and 7-10 require the prismatic light control element to be unified with another element, thereby preventing the prismatic light control element from being moved. This may reduce the possibility of prismatic projections of the prismatic light control surface from being damaged by the emission face of the light guide plate upon scraping against the emission face of the light guide plate.

In view of the foregoing, it is submitted that the rejections relying upon Hiyama et al. should be withdrawn.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

Serial No. 09/288,217

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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HOWARD v. DETROIT STOVE WORKS

No. 64.

SUPREME COURT OF THE UNITED STATES

150 U.S. 164; 14 S. Ct. 68; 37 L. Ed. 1039; 1893 U.S. LEXIS 2370

Argued November 2, 3, 1893.
November 13, 1893, Decided

PRIOR HISTORY:

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE EASTERN DISTRICT OF MICHIGAN.

IN equity, for the infringement of letters patent. Decree dismissing the bill, from which complainants appealed. The case is stated in the opinion.

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LEXIS HEADNOTES - Classified to U.S. Digest Lawyers' Edition:

Void patents for improvements in stoves. --

Headnote:

1. The patent No. 123,142, issued to Philo D. Beckwith January 30, 1872, for an improvement in stoves was anticipated by prior patents, and is void for want of invention.
2. The patent No. 135,621, issued Feb. 11, 1873, to Philo D. Beckwith for improvements in wood stoves is void because the bolting or riveting together of sections of a stove was well known at the time of the invention, and the use of lugs with holes perforated through them was anticipated in other stoves and furnaces manufactured many years prior to the date of the patent.
3. The patent No. 206,074, issued July 16, 1878, to Philo D. Beckwith for an improvement in stoves is void, because the claims in it were clearly anticipated and because it involves no invention to cast in one piece an article which has formerly been cast in two pieces and put together, nor to make the shape of the grate correspond with that of the fire-pot.

SYLLABUS: The alleged invention patented in letters patent No. 123, 142, issued January 30, 1872, to Philo D. Beckwith for "an improvement in stoves," was anticipated by prior patents and is void for want of invention in not describing how wide the flange should be in order to accomplish the desired result.

Letters patent No. 135,621, issued February 11, 1873, to Philo D. Beckwith for "novel improvements in a stove," are void because the bolting or riveting together of sections of a stove was well known at the time of the alleged invention, and the use of lugs with holes perforated through them was anticipated in other stoves and furnaces manufactured many years prior to the date of the patent.

Letters patent No. 206,074, issued to Philo D. Beckwith, July 16, 1878, for a "new and useful



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improvement in stove grates," is void because the claims in it were clearly anticipated, and because it involved no invention to cast in one piece an article which had formerly been cast in two pieces and put together, nor to make the shape of the grate correspond with that of the fire-pot.

COUNSEL: Mr. W. G. Howard for appellants.

Mr. George H. Lothrop for appellee.

OPINION BY: JACKSON

OPINION: [*165] [**68] [***1039] MR. JUSTICE JACKSON delivered the opinion of the court.

This suit was brought by appellants' testator, Philo D. Beckwith, against the appellee for the alleged infringement of three letters patent, viz.: No. 123,142, issued January 30, 1872; No. 135,621, issued February 11, 1873; and No. 206,074, issued July 16, 1878, all for improvements in heating stoves. The defences set up and interposed were that the patents were all void for want of novelty and patentable invention. Pending the suit the patentee died, and the cause was revived and proceeded in the name of his executors. [**69] The court below dismissed the bill and complainants appeal to this court to reverse that decree.

The first patent, issued January 30, 1872, relates to an improvement in stoves, wherein an exposed fire-pot section, cylindrical in shape and tapering downwardly, is fitted into the upper end of a hollow ash-pit section. This fire-pot has formed on the inner side of its lower end an annular flange on which the grate rests. The theory of the patent is that this flange, which may be cast on, or made separate from, the fire-pot and riveted or otherwise fastened to it, is made of such a width that it will collect upon it a bank of ashes, which will have the effect of preventing undue expansion of the fire-pot at the point of junction with the ash-pit. Or, in other words, the collection of ashes on the flange will prevent such an expansion of the [***1040] lower end of the fire-pot as would cause it to leave its seat on the ash-pit and expose an open joint at this point. The inventor stated in his application that he had found that the expansion of the fire-pot is so great without the flange that the stove proves a failure; but with the flange [*166] cast on it at the point designated above, the joint will remain tight during the lifetime of the stove. The novelty involved in the patent consists entirely of the tapering cast-iron fire-pot with the annular flange or shelf formed on its inside lower end at the point where it joins the ash-pit, and upon which flange the grate rests. The single claim is "the tapering cast-iron section B with the flange or shelf c framed on it, as described and shown."

It was claimed by the appellee that this feature of the invention was so common in actual stove construction at the time the patent was issued as to be deemed obvious, and that prior patents, attaining the same results, had been granted which practically covered the same design or contrivance included in this particular patent. In support of this contention it was shown that a patent had been issued to Benjamin Brownell, on September 18, 1868, for a soft coal hot-air furnace, in which it appears from the drawings set out in the record that a tapering fire-pot is one of the elements of his invention, although it is not described in the specification. The drawings also indicate, and it was established by expert testimony, that this tapering fire-pot had a flange on the inside lower end, upon which the grate rests. At the trial a model of the Brownell patent was introduced in which it was shown that the model differed from the patent drawings in having the projecting flange at the lower end of the fire-pot formed on the ash-pit, instead of on the fire-pot.

The appellee further showed that a patent was issued to A. Atwood, May 14, 1850, No. 7356, which has a flange projecting under the lower edge of the fire-pot as wide as the outer rim of the grate. This flange is upon the ash-pit and not upon the fire-pot. A patent issued to Bush & Richards, No. 171,129, November 19, 1867, shows a construction like the Atwood patent, except that the fire-pot is tapering.

It therefore appears in these three patents offered by the appellee in support of its contention that the invention of the appellants had been anticipated, that they contain a clear and accurate representation of the contrivance of the Beckwith patent; that even if the flange was formed on the ash-pit [*167] instead of on the fire-pot, it was the equivalent thereof, because it performed the same function in the same way; and that the only function of the flange would be to collect a ring or bank of ashes at the base of the fire-pot when the stove was in use.

If there is any material difference between the patent under consideration and those just discussed, it is found in the width of the flange. The appellants lay particular stress upon the fact that the width of the flange in the Beckwith patent -- which was to serve the primary purpose of permitting a bank of ashes to form upon it which would have the effect of preventing the lower part of the fire-box from becoming unduly heated -- is greater than shown in the previous patents; but neither in the specification nor claim of the patent does the patentee indicate what shall be the width of this flange. The description of the invention is vague and indefinite, and is not sufficient to enable those skilled in the art to construct it without experiment so as to attain the desired result. The width of the flange is a mere matter of degree, and if at the time of the invention the proper width of the flange to accomplish the purpose desired was known, then the patentee made no invention. If the proper width was not known at that time, it should have been described in the patent; but as the patent is silent on this point, except that the drawings indicate that the width of the outside rim of the grate is the proper width for the flange, it can hardly be said under such circumstances that the vague and indefinite description of the width of the flange elevates it to the dignity of invention, for it has been shown that the stoves covered by the patents just discussed also had each a flange which performed the same function, although not specifically claimed in the patents. We think it is obviously apparent that the patent of appellants' testator has not only been anticipated, but that it is wanting in all of the elements of patentable novelty.

The next patent to be considered is No. 135,631, issued February 11, 1873. This patent is for improvements in wood stoves, and consists of the construction, combination, and arrangements of the various cooperating devices comprising the parts of the stoves by joining them together with short [*168] bolts or rivets, adapted to lugs or flanges, instead of long rods which, when exposed to the fire, are liable to be burned off several times during the life of the stove. The claims are [*70] four in number, but the third is not claimed to be infringed. The general form of the fire-pot is the same as in the former patent, including the internal flange, which, it is alleged, now performs a triple function, viz.: collecting ashes, as before; supporting the grate, as before, and securing the ash-pit to the fire-pot by means of bolts or rivets passing through holes in the flange. The three claims in controversy are as follows:

[***1041] "1. The section A (ash-pit) and section B (fire-box) constructed and secured together by means of bolts or rivets, and the internal flange b, substantially as described.

"2. The sheet-metal section C, (body of the stove,) fitted into the fire-pot section B, and secured thereto by means of bolts or rivets, substantially as described.

"4. The top-plate or section G, secured to the section F, by means of lugs and bolts, or rivets, as set forth."

The first claim of this patent is the same as covered by the former patent of Beckwith, except that the fire-box and the ash-pit in the former patent were not bolted together. The second and fourth claims are also found in the prior patent, except that the parts are not riveted together, and the top plate, or section G of claim 4, has in the older patent an annular depending flange entering the lower section instead of lugs. In the present patent the flange is shown riveted to the lower section.

It is shown conclusively by letters patent issued to J. H. Keyser, March 19, 1867, No. 62,961, and by No. 114,614, issued May 9, 1871, to Samuel Smith, and by patent No. 127,535, issued to H. Whittingham, that it was common to secure the various sections of stoves together by bolts and rivets, and unimpeached testimony shows that the Barstow Stove Company of Providence, R.I., since 1856, has made a stove in which a cast-iron top and base are provided with lugs, through which holes are drilled for the purpose of riveting the sheet-iron body of the stove to the top and base. These claims, in view of the state of the art, limited the novelty to the use [*169] of bolts and rivets, and it is too plain for discussion, or the citation of authorities, that this does not involve invention.

The third patent, No. 206,074, issued July 16, 1878, which the appellants claim has been infringed, contains two claims, both of which are in controversy, and, substantially, is for the invention of a circular grate having a thin closed portion, a thick open portion, strengthened by ribs, and with a toothed periphery opposite the open part of the grate. It appears from the record that a patent, No. 76,315, was issued to Mary E. A. W. Evard, on April 7, 1868, which describes a grate with a closed back and open front, and the drawing in the patent clearly shows that the open front is thicker than the closed back, and forms ribs on the closed back. The only difference between this grate and the one under consideration is that the Evard one is rectangular to fit a rectangular fire-box, while the Beckwith grate is circular to fit a circular fire-box. The prior use of the elements contained in this patent is conclusively shown. The Rambler grate answers the first claim, except that both the open and closed parts are of the same thickness. The North American and Morning and Evening Star grates answer the first claim literally, except that they are rectangular instead of circular, and provided with holes in the plate part of the grate, where the Beckwith grate has none. At the date of this invention it was common to make wood-burning grates partly open and partly closed, with teeth at their ends, which serve exactly the same purpose as the teeth D of the patent. These grates are all used in cooking stoves, and are rectangular in form, while the Beckwith patent is circular in shape, but it cannot be maintained that there is any element of invention in making the grate fit the particular fire-box of the stove to be constructed. To accomplish that end mechanical skill alone is necessary, and does not call for the exercise of inventive talent.

The appellants urge that the word "periphery" is a word of limitation confined to a circular grate. However this may be, it is conclusively shown that the Monumental grate, which was in public use five years before application was made for the patent under consideration, contains all the elements of [*170] the Beckwith grate, except that, being adapted for burning coal, it is cast in two pieces, while the Beckwith grate is cast in one piece. This does not involve patentable invention.

Our conclusions are, that as to the first patent it was anticipated by prior patents, and is void for want of invention in not describing how wide the flange should be in order to accomplish the desired result. As to the second patent, it is void because the bolting or riveting together of

sections of a stove was well known at the time of the invention, and the use of lugs with holes perforated through them was anticipated in other stoves and furnaces manufactured many years prior to the date of the patent. As to the third patent, it is void because the claims in it were clearly anticipated, and because it involves no invention to cast in one piece an article which has formerly been cast in two pieces and put together, nor to make the shape of the grate correspond with that of the fire-pot.

Our opinion is that the judgment of the court below dismissing the bill should be

Affirmed.

MR. JUSTICE GRAY was not present at the argument, and took no part in the decision.